

Confidential - Per 2004 MDL 1358 Order

Page 920

1 BY MR. ANDERSON:
 2 Q. So you have made that determination
 3 with respect to Unocal 5226?
 4 A. Based on my definition, what I just
 5 said, that's what I believe to be true.
 6 MR. MILLER: Are you done with your list?
 7 How long is your list? How many pages?
 8 MR. ANDERSON: I'm really close.
 9 MR. MILLER: You keep promising that. But
 10 it's after 5:00.
 11 MR. ANDERSON: Just be patient.
 12 Am I done?
 13 MR. KATZ: Yes.
 14 MR. ANDERSON: I'm done for the day.
 15 MR. MILLER: Thank you.
 16 MR. ANDERSON: So be back at 8:00.
 17 MR. MILLER: Perhaps not.
 18 MR. ANDERSON: Off the record.
 19 THE VIDEOGRAPHER: This is the end of tape
 20 two of two and concludes today's deposition of David
 21 Bolin. At 5:09 p.m. we are off the record.
 22 (The deposition was concluded on this day at
 23 5:09 p.m.)
 24 --o0o--
 25

Page 921

1 Please be advised I have read the foregoing
 2 deposition, and I state there are:
 3 (Check one) _____ NO CORRECTIONS
 4 _____ CORRECTIONS PER ATTACHED
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 6
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 8 _____
 9 DAVID P. BOLIN
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1 DEPONENT'S CHANGES OR CORRECTIONS
 2 Note: If you are adding to your testimony, print the
 3 exact words you want to add. If you are deleting from
 4 your testimony, print the exact words you want to
 5 delete. Specify with "Add" or "Delete" and sign this
 6 form.
 7 DEPOSITION OF: DAVID P. BOLIN, Volume 4
 8 CASE: MTBE MDL (OCWD)
 9 DATE OF DEPOSITION: AUGUST 20, 2008
 10 PAGE LINE CHANGE/ADD/DELETE
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 24 DEPONENT'S SIGNATURE _____
 25 DATE _____

Page 923

1 REPORTER'S CERTIFICATE
 2
 3 I certify that the witness in the foregoing
 4 deposition.
 5 DAVID P. BOLIN
 6 was by me duly sworn to testify in the within-entitled
 7 cause; that said deposition was taken at the time and
 8 place therein named; pages 804 through 923 of the
 9 testimony of said witness were reported by me, a duly
 10 Certified Shorthand Reporter of the State of California
 11 authorized to administer oaths and affirmations, and said
 12 testimony was thereafter transcribed into typewriting.
 13 I further certify that I am not of counsel or
 14 attorney for either or any of the parties to said
 15 deposition, nor in any way interested in the outcome of
 16 the cause named in said deposition.
 17 IN WITNESS WHEREOF, I have hereunto set my hand this
 18 2nd day of September 2008.
 19
 20
 21 _____
 22 SANDRA BUNCH VANDER POL, RMR, CRR
 23 Certified Shorthand Reporter
 24 Certificate No. 3032
 25

31 (Pages 920 to 923)

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UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

IN RE:

Methyl Tertiary Butyl: Master File No. 1:00-1898
Ether ("MTBE") : MDL NO. 1358 (SAS)
Products Liability : M21-88
Litigation :

This Document Relates to:
Orange County Water District
v. Unocal Corporation, et al.,
S.D.N.Y. No. 04 Civ. 4968 (SAS)

CONFIDENTIAL
(Per 2004 MDL 1358 Order)

August 21, 2008

Videotaped Deposition of DAVID P. BOLIN,
Volume 5, OCWD'S 30(b)(6) DESIGNEE, held in the law
offices of Latham & Watkins, 650 Towne Center Drive,
Suite 2000, Costa Mesa, beginning at 9:02 a.m., before
Sandra Bunch VanderPol, RPR, RMR, CRR, CSR #3032.

GOLKOW TECHNOLOGIES, INC.
877.370.3377 ph|917.591.5672 fax
deps@golkow.com

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<p style="text-align: right;">Page 1113</p> <p>1 BY MR. CORRELL:</p> <p>2 Q. As we can see by your notes in</p> <p>3 Exhibit 60, remediation or investigation can include</p> <p>4 the installation of off-site monitoring wells by the</p> <p>5 responsible party, correct?</p> <p>6 A. I believe that's correct, as you</p> <p>7 state it.</p> <p>8 Q. And remediation, if it's designed to</p> <p>9 do so on site, can capture off-site contamination,</p> <p>10 correct?</p> <p>11 A. Depending on the remedial design and</p> <p>12 the size of the system, it is possible to capture</p> <p>13 some off-site contamination.</p> <p>14 Q. And so just because contamination has</p> <p>15 left the site doesn't necessarily mean it's left the</p> <p>16 reach of the cleanup, correct?</p> <p>17 A. It is true that just because it's</p> <p>18 left the site, it does not mean it has escaped</p> <p>19 potential cleanup. But just because there is ongoing</p> <p>20 cleanup doesn't mean it is being captured by that</p> <p>21 cleanup.</p> <p>22 Q. You would have to do a site-by-site</p> <p>23 analysis to tell?</p> <p>24 A. Well, in this case, yes, you would.</p> <p>25 Q. If you go to page 2, sir, of</p>	<p style="text-align: right;">Page 1115</p> <p>1 Q. And HB-1. There's three wells listed</p> <p>2 under the topic of, "Groundwater Conduits are Nearby,</p> <p>3 paren, potential migration paths from shallow</p> <p>4 saturated zones to deeper saturated zones." Do you</p> <p>5 see that?</p> <p>6 A. Right. I see where you are looking.</p> <p>7 Q. And these are listed as potential</p> <p>8 migration paths. When will the District know whether</p> <p>9 or not these are actual migration paths?</p> <p>10 A. I don't know when we will be able to</p> <p>11 make that determination. There are basically three</p> <p>12 mechanisms by which the contamination from the</p> <p>13 surface can get into a drinking water well at depth,</p> <p>14 whether it flows along the surface and gets into the</p> <p>15 well itself, whether it migrates down through the</p> <p>16 geology and then flows to within the capture zone of</p> <p>17 that particular well within that particular interval,</p> <p>18 or whether it flows to some other potential conduit,</p> <p>19 such as I have indicated here, these potential</p> <p>20 conduits, and then get into a -- down into a lower</p> <p>21 zone and then is captured by -- by a producing well.</p> <p>22 I don't know when we will be able to</p> <p>23 identify. It's a very difficult thing to do. I</p> <p>24 don't know when we are going to be able to identify</p> <p>25 which conduit and whether a conduit was the cause of</p>
<p style="text-align: right;">Page 1114</p> <p>1 Exhibit 60. Towards the bottom of the page you list</p> <p>2 two domestic wells. By "domestic wells," do you mean</p> <p>3 private drinking wells?</p> <p>4 A. I believe that's what domestic wells</p> <p>5 are. They are used for a variety of purposes. It</p> <p>6 could be farm, livestock, something like that. But</p> <p>7 it's a privately-owned well.</p> <p>8 Q. And you say, "Potential migration</p> <p>9 paths from shallow saturated zones to deeper</p> <p>10 saturated zones." Do you see that?</p> <p>11 MR. MILLER: Could you help me. What page?</p> <p>12 MR. CORRELL: On page 2.</p> <p>13 THE WITNESS: What line are you at, sir?</p> <p>14 MR. CORRELL: Right above those two domestic</p> <p>15 wells.</p> <p>16 THE WITNESS: Okay. I'm looking at the</p> <p>17 exhibit. That's where the numbering does help, the</p> <p>18 line numbering.</p> <p>19 Oh, I see where you are talking about.</p> <p>20 There's a well number there. Would you tell me which</p> <p>21 well number you're looking at?</p> <p>22 Q. Well, there's Well 16785.</p> <p>23 A. Yes.</p> <p>24 Q. Well 16947.</p> <p>25 A. Yes.</p>	<p style="text-align: right;">Page 1116</p> <p>1 migration of the contamination from the surface into</p> <p>2 a greater depth.</p> <p>3 Q. Or whether it has, in fact, migrated.</p> <p>4 correct?</p> <p>5 A. Well, given that we have detections</p> <p>6 in production wells, we know it's migrated from</p> <p>7 somewhere. We can say that categorically. That if</p> <p>8 there's a detection in a well of a compound that</p> <p>9 originated at the surface, then it had to have</p> <p>10 migrated.</p> <p>11 Q. From somewhere?</p> <p>12 A. From somewhere.</p> <p>13 Q. And as you can possibly imagine, my</p> <p>14 client is very interested in how it migrated from</p> <p>15 5123, and that's the question you don't know the</p> <p>16 answer to, correct?</p> <p>17 A. That's correct.</p> <p>18 MR. MILLER: Objection, argumentative.</p> <p>19 Assumes facts not in evidence.</p> <p>20 And which person within an oil company</p> <p>21 cares. I'd like to know. If you could tell me, I'd</p> <p>22 like to interview the person.</p> <p>23 MR. CORRELL: We all care, Duane.</p> <p>24 I'd like to mark Exhibit 66.</p> <p>25 (Exhibit No. 66 was marked.)</p>

49 (Pages 1113 to 1116)

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Page 1129

1 60-foot elevation contour at the mean sea level. And
2 the contouring, you can see, indicates a depression
3 in that direction. So eventually the water will flow
4 to the north towards those wells.

5 BY MR. CORRELL:

6 Q. If it goes to the deeper zone?

7 A. Well, I believe it goes to the deeper
8 zone because there is a downgradient. We know that
9 the shallow water feeds, replenishes the deeper
10 water. So eventually it gets down there into the
11 principal aquifer and flows into the drinking water
12 wells.

13 Q. What's the deepest level that MTBE
14 has been detected underneath the Unocal 5123 site?

15 A. It would be in the deepest well. I
16 don't have the -- oh, I believe the deepest well in
17 the -- let me make sure I'm looking at the right
18 site -- Unocal 5123 is in the C zone, identified as
19 the C zone, which is screened from 40 to 50 feet.

20 Q. And the drinking water table beneath
21 the site is what level?

22 A. I will call it a -- we call it the
23 principal aquifer. And the principal aquifer -- the
24 top of the principal aquifer is at about 187 feet
25 below ground surface.

Page 1130

1 Q. So in excess of 100 feet below the
2 deepest detection of MTBE?

3 A. The principal aquifer begins at about
4 100 feet below the lowest well that's screened at
5 this site.

6 Q. Now, during -- from any time that a
7 release was reported to present, has the District
8 taken any action to attempt to influence the remedial
9 activities occurring at the site?

10 MR. MILLER: Objection, vague and
11 argumentative.

12 THE WITNESS: I'd like to add something to
13 my previous answer.

14 MR. CORRELL: Please do.

15 THE WITNESS: I'm sorry. I'm still thinking
16 about your previous question.

17 HB-1, which does not currently have a pump
18 in it, but it is a production well that is in this
19 general area identified as one of the focus wells,
20 but we haven't been able to test it because it's got
21 the -- I'm sorry, the pump, it's been pulled out of
22 the well, is what I meant to say.

23 It is screened -- I lost my place. It's
24 screened at 265. So it's not at the top of the
25 principal aquifer, but it does drawdown water from

Page 1131

1 the upper zone in the principal aquifer where other
2 wells are screened at different zones.

3 BY MR. CORRELL:

4 Q. It draws down when it has a pump,
5 right?

6 A. When it has a pump, right.

7 Q. So it's currently not a production
8 well?

9 A. It's currently not producing.

10 I'm sorry. What was your last question
11 then? Not that one.

12 Q. I understand. What was my question?

13 (Record read as follows: QUESTION: Now,
14 from any time that a release was reported to present,
15 has the District taken any action to attempt to
16 influence the remedial activities occurring at the
17 site?)

18 THE WITNESS: The District hasn't taken
19 specific action on this particular site regarding
20 remediation of contaminants, known contaminants at
21 the site.

22 BY MR. CORRELL:

23 Q. Why hasn't the District offered its
24 expertise to help the Orange County Health Care
25 Agency or the responsible party take any additional

Page 1132

1 action that the District may think necessary?

2 A. I can't comment on why we haven't
3 helped the responsible party, other than that might
4 involve the fact that we're in litigation.

5 But in terms of helping the Health Care
6 Agency, we're not telling the Health Care Agency how
7 to do their job here. We are looking at the impacts
8 and the threats to drinking water wells in deciding
9 what Orange County Water District is going to have to
10 do.

11 To my knowledge, I don't believe that the
12 Health Care Agency is able to conduct any remediation
13 activities itself. It would actually have to defer
14 to other agencies to implement that kind of activity.

15 Q. And do you know why the Orange County
16 Water District, prior to the litigation, didn't
17 provide any recommendations to the PRP at the site?

18 MR. MILLER: Objection, assumes facts not in
19 evidence. Argumentative.

20 THE WITNESS: I don't know that it didn't
21 one way or the other.

22 BY MR. CORRELL:

23 Q. Have you seen any document in the
24 District's file indicating that it did?

25 A. No, I have not seen a document.

53 (Pages 1129 to 1132)

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Page 1133

1 Q. And I take it that you, in reaching
2 your opinions, reviewed the documents on this site in
3 the District's file?

4 A. Yes, I have seen all the District's
5 documents in their file.

6 Q. And I apologize if I asked you this
7 before. I can't remember if I did on this site or
8 the previous site.

9 But as of today, you cannot trace the
10 contamination in any production well to this site,
11 correct?

12 A. I think you might have asked me that,
13 But if you didn't, I can't remember either. We
14 haven't determined that the specific detections
15 identified in production wells were specifically from
16 this site.

17 Q. In going back to Exhibit No. 2 for
18 the stations listed in plume 9, other than the
19 Huntington Beach ARCO, as you sit here today, you do
20 not know whether the Unocal 5123 contamination, if
21 any, has commingled with the contamination from the
22 other sites, if any?

23 A. I think you asked me that question
24 already. And I think I was talking about the
25 Huntington Beach ARCO site to the south across the

Page 1134

1 street.

2 Q. And that's why I asked the follow-on
3 question. When I asked that question initially, you
4 said the Huntington Beach ARCO.

5 A. I am sorry. I misunderstood.

6 Q. So now I'm trying to put a bow on the
7 rest of them.

8 A. Okay.

9 Q. So let me ask it again.

10 As you sit here today, do you have any
11 evidence that any contamination from Unocal 5123 has
12 commingled with the other sites listed in plume 9,
13 other than the Huntington Beach ARCO?

14 A. I apologize. Thank you.

15 I don't have specific information, other
16 than the fact that there's been a detection in
17 drinking water wells, and that the source of that
18 detection is likely from one or more of these sites.
19 It might possibly have commingled at this point. It
20 might not have. We don't know.

21 We do believe that it is still traveling.
22 And that if it hasn't commingled already, it will
23 eventually.

24 Q. And when you say, "we believe it will
25 eventually," you have reached that opinion not even

Page 1135

1 knowing the amount from any of these sites that --
2 amount of contamination from any of these sites that
3 have left the sites, correct?

4 MR. MILLER: Objection, argumentative.
5 Vague.

6 THE WITNESS: We don't have specific
7 information. This is where our modeling and further
8 analysis will -- will generate some conclusions along
9 these lines.

10 In the meantime, we have reason to believe
11 that substantial releases at early dates,
12 understanding that MTBE is resistant to retardation,
13 it's resistant to degradation, it's a fairly stable
14 product that moves fairly freely with groundwater,
15 that there is a great likelihood that it has traveled
16 all the way into the production wells in which MTBE
17 has been detected.

18 BY MR. CORRELL:

19 Q. What do you base your opinion on that
20 MTBE is resistant to degradation?

21 A. Scientific documents that I have
22 seen.

23 Q. Would you consider that an area of
24 your expertise?

25 A. No, I am not an expert in that area.

Page 1136

1 Q. How much money has the District
2 expended to date related to the Unocal 5123 station?

3 A. We don't have any records that break
4 out our expenses for individual sites, so I can't say
5 how much time and effort has been focused on this
6 site relative to another one. I can't quantify what
7 that expense would be.

8 Q. It was one of the sites that Komex
9 reviewed, correct?

10 A. Yes.

11 Q. And the -- the tab for the Komex
12 reports was approximately \$600,000?

13 A. It was more than that. But --

14 Q. About 700,000?

15 A. Yes.

16 Q. So if we divided that by the 40
17 sites, we would come to less than \$20,000?

18 A. Calculate. Do the math. I don't
19 know what -- how much time they spent on this site
20 relative to another one.

21 If the size of the binder is any indication,
22 it looks like there is more information on this site
23 than there was on other sites. But I didn't quantify
24 or begin to guess how much money or time they spent
25 on this site.

54 (Pages 1133 to 1136)

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Page 1137

1 Q. Okay. What specific future actions
2 does the District plan in relation to Unocal 5123?

3 A. My answer to that question is going
4 to be substantially the same as the same question
5 regarding other sites. And that is that we have a
6 list of activities that we know we're going to have
7 to take. We don't -- we're going to have to take
8 some of those activities. We just don't know which
9 activities we're going to have to take yet.

10 Q. If you go back to Exhibit No. 63 from
11 your binder, which was detections -- it's this one.

12 A. Does that look familiar? I believe
13 that's it.

14 Q. We are to the right page. Does do
15 you see the February 13, 2008 MTBE test?

16 A. Yes, I do.

17 Q. Of 0.01?

18 A. Yes, I do.

19 Q. Is that significant?

20 A. It's certainly meaningful to me. It
21 indicates to me that MTBE has reoccurred in the well,
22 based on this report.

23 Q. And if we look down in August 25th of
24 1999, it has the same level of detection?

25 A. I see that.

Page 1138

1 Q. Was it significant then?

2 A. I believe it was -- had the same
3 meaningfulness. It's a reoccurrence in that well.

4 Q. Okay. In your review of the
5 regulatory files, did you see where any regulatory
6 agency had concluded that MTBE escaped remediation
7 from this site?

8 A. I can't recall a statement by the
9 regulatory agency saying that MTBE has escaped from
10 the site. Only that MTBE has been detected off site.
11 The site has never been closed. And that there is a
12 continuing ongoing effort -- apparently ongoing
13 effort at the site. But given that the -- it depends
14 on how you define escape again. It's outside the
15 site boundary. It's escaped the site.

16 If there's a remediation system that is
17 proposed to drawdown water and capture the water
18 that's contaminated -- that has escaped the site,
19 then it hasn't escaped -- then it might not escape
20 the remedial capture. But, to my knowledge, no
21 remedial design has been implemented, and there is no
22 plan for a remedial design to do that.

23 Q. And I appreciate that. But I'm
24 asking from your review of the regulatory files, have
25 you seen that another regulatory agency, for example,

Page 1139

1 the Orange County Health Care Agency, has determined
2 that remediation -- that MTBE has escaped the
3 remediation at the site?

4 A. I don't remember seeing a statement
5 from the Health Care Agency. You would only have to
6 look at the data and draw a conclusion as to whether
7 the contamination outside the site boundary is within
8 the remedial capture zone or it is not. I do not
9 believe that it is. I believe it is outside the
10 remedial capture zone.

11 Q. What current remediation is operating
12 at the site, sir?

13 A. I can't be certain. The last
14 document that I reviewed from my deposition is dated
15 January 2008. And I believe that the remediation
16 system was discontinued, according to my notes,
17 discontinued and is not currently operating.

18 Q. Did that influence your opinion that
19 MTBE has escaped remediation?

20 A. That -- if you're asking me whether
21 the fact that the status of the current remediation
22 system has been discontinued influenced my opinion
23 that contamination escaped remediation, no, it did
24 not.

25 Q. So whether remediation is active --

Page 1140

1 never mind.

2 A. Well, I don't think the -- I don't
3 think it can be captured by an on-site remediation
4 system now.

5 Q. Okay.

6 A. I think it's escaped. It's gone to
7 too far.

8 Q. Even though you don't know the amount
9 that has escaped?

10 A. That's correct.

11 Q. And I probably asked you this
12 already, but it's sort of my last question on this
13 station.

14 What specific actions do you have planned
15 for this site in the future?

16 MR. MILLER: I believe that's been asked and
17 answered.

18 But go ahead.

19 THE WITNESS: I think you did ask me that
20 And my answer is that we have a list of activities
21 that we're considering for this site -- all these
22 sites, but specifically we're talking about this
23 site, and my answer for this site is substantially
24 the same as the other sites.

25 We don't know exactly which activities we're

55 (Pages 1137 to 1140)

Page 1143

1 Please be advised I have read the foregoing
2 deposition, and I state there are:
3 (Check one) _____ NO CORRECTIONS
4 _____ CORRECTIONS PER ATTACHED

DAVID P. BOLIN

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$$\begin{array}{c} 12 \\ 13 \end{array}$$

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Page 1144

1 DEPONENT'S CHANGES OR CORRECTIONS

2 Note: If you are adding to your testimony, print the
3 exact words you want to add. If you are deleting from
4 your testimony, print the exact words you want to
5 delete. Specify with "Add" or "Delete" and sign this
6 form.

7 DEPOSITION OF: DAVID P. BOLIN, Volume 5

8 CASE: MTBE MDL (OCWD)

9 DATE OF DEPOSITION: AUGUST 21, 2008

10	PAGE	LINE	CHANGE/ADD/DELETE
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24 DEPONENT'S SIGNATURE

2.5 DATE

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Page 1145

1 REPORTER'S CERTIFICATE

2
3 I certify that the witness in the foregoing
4 deposition.

5 DAVID P. BOLIN

6 was by me duly sworn to testify in the within-entitled
7 cause; that said deposition was taken at the time and
8 place therein named; pages 925 through 1145 of the
9 testimony of said witness were reported by me, a duly
10 Certified Shorthand Reporter of the State of California
11 authorized to administer oaths and affirmations, and said
12 testimony was thereafter transcribed into typewriting.

13 I further certify that I am not of counsel or
14 attorney for either or any of the parties to said
15 deposition, nor in any way interested in the outcome of
16 the cause named in said deposition.

17 IN WITNESS WHEREOF, I have hereunto set my hand this
18 2nd day of September, 2008.

19
20 -----
21 SANDRA BUNCH VANDER POL, RMR, CRR
22 Certified Shorthand Reporter
23 Certificate No. 3032
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Golkow Technologies, Inc. - 1.877.370.DEPS

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Page 1146

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

IN RE:

Methyl Tertiary Butyl: Master File No. 1:00-1898
Ether ("MTBE") : MDL NO. 1358 (SAS)
Products Liability : M21-88
Litigation :

This Document Relates to:
Orange County Water District
v. Unocal Corporation, et al.,
S.D.N.Y. No. 04 Civ. 4968 (SAS)

CONFIDENTIAL
(Per 2004 MDL 1358 Order)

OCTOBER 20, 2008

Videotaped Deposition of DAVID P. BOLIN,
Volume 6, OCWD'S 30(b)(6) DESIGNEE, re Focus Plumes
2, 7 and 9, held in the law offices of Latham &
Watkins, 650 Town Center Drive, Suite 2000, Costa
Mesa, California, beginning at 9:08 a.m., before
Sandra Bunch VanderPol, RPR, RMR, CRR, CSR #3032.

GOLKOW TECHNOLOGIES, INC.

877.370.3377 ph|917.591.5672 fax

deps@golkow.com

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<p style="text-align: right;">Page 1163</p> <p>1 more detail, there are more figures in the copy -- in 2 this exhibit that you gave me than I have in my copy. 3 Q. Okay. And the copy you're referring 4 to is under what tab in your binder? 5 A. It's under Tab 1 in my binder. 6 Q. Okay. Okay. Well, maybe on a break 7 we will go through and compare them to make sure that 8 it's exact. 9 If I were to want to go get a complete 10 copy of this Komex report, where would you direct me 11 to look? Would it be from your binder or some other 12 location, to be certain that I had the complete copy? 13 A. This binder has been produced. You 14 have a complete copy. You could go to this binder 15 and make another copy. 16 Just a quick glance, it looks like the 17 figures have been duplicated. Maybe that's why there 18 are so many. 19 Q. Oh. You think there's repeats within 20 here? 21 A. Yes. 22 Q. Okay. All right. We will figure it 23 out on a break. 24 Were you -- did you ever make any edits or 25 revision to this report?</p>	<p style="text-align: right;">Page 1165</p> <p>1 A. I can't recall sending copies of the 2 reports to my -- to the district's counsel. I know 3 that they have seen the report. 4 Q. Do you know whether or not anyone 5 from Mr. Miller's office has provided comments or 6 edits to the report? 7 A. No, I do not. 8 Q. Was -- after receiving this report, 9 was Komex charged with any sort of follow-up work 10 related to Mobil 18-JMY? 11 A. There was an additional scope of work 12 that we had prepared in anticipation of additional 13 work. That work was not completed. 14 Q. Specific to Mobil 18-JMY, what was 15 Komex charged with doing? 16 A. I'm reflecting on the scope of work. 17 They were asked to review agency files, summarize the 18 current status of knowledge about this particular 19 station, evaluate the occurrence of MTBE and TBA 20 historically and currently, and provide some general 21 hydrogeologic input about the site. 22 Q. And when were they charged with doing 23 that? 24 A. This was a scope of work that they 25 entered into in 2005.</p>
<p style="text-align: right;">Page 1164</p> <p>1 A. No. I have marked my copy, if that's 2 what you're asking me. 3 Q. No, no, no. 4 I'm asking you, did you see sort of a 5 preliminary draft from Komex and then give them 6 feedback on things that you wanted to have revised or 7 changed within the report? 8 A. Not that I recall. There were one or 9 two reports where there was an error in the address 10 that we had corrected. But other than that, I 11 don't -- I did not make any comments or direct any 12 changes to the contents of the report. 13 Q. Did you form any conclusions as to 14 the accuracy of the report after you received it? 15 A. I don't recall -- 16 MR. AXLINE: Objection. I'm going to object 17 to that question. It calls for an opinion from the 18 witness rather than his knowledge. 19 THE WITNESS: I don't recall seeing anything 20 that I thought was contradictory in nature. The 21 general statements, I thought, were reasonably 22 accurate, as they were written. 23 BY MS. ROY: 24 Q. Did you provide a copy of the report 25 to your attorneys?</p>	<p style="text-align: right;">Page 1166</p> <p>1 Q. And that project was not completed? 2 A. There is still an outstanding budget. 3 While Komex is not currently doing any work on this 4 site there, we have not closed the budget or closed 5 the contract. 6 Q. You mentioned that it's not 7 completed. Was it ever started with respect to Mobil 8 18-JMY? 9 A. I'm not sure I understand your 10 question. 11 Q. Okay. I'm talking about follow-up 12 work, subsequent to this report. You've testified 13 that Komex was charged with doing a variety of things 14 related to this station. And I'm wondering if any of 15 that work was actually begun by Komex. 16 A. Not additional work. The follow -- 17 if you're referring to follow-up work, no. 18 Q. Was any other outside consultant 19 charged with doing anything related to Mobil 18-JMY 20 after you received this report? 21 A. No other outside consultant has 22 provided input on this station for us yet. 23 Q. All right. After you received 24 this Komex report, other than the scope of work 25 that you discussed with Komex, did OCWD do</p>

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<p style="text-align: right;">Page 1171</p> <p>1 A. This is summary information that I 2 compiled, I put together for the deposition to answer 3 questions. 4 Q. And what did you review in order to 5 compile this summary? 6 A. Most of this information is compiled 7 from the documents that are in the binder that you 8 have before you and that I have before me. 9 They consist of quarterly monitoring 10 reports, communications between regulatory agencies 11 and the RP's consultant. It includes a map and 12 tables of data that are compiled. 13 One thing that is in this exhibit that is 14 not in this binder are tables of some well 15 specification information tables that I had compiled 16 also. These are nearby wells -- or wells located 17 near Mobil JMY. They are not in the binder, but I 18 printed them out to help me identify them by wells. 19 Q. And when you say you "printed them 20 out," where did you print them from? 21 A. From the District's database. It's 22 called WRMS, W-R-M-S, database. 23 Q. And the charts that you're 24 referencing now, the ones that you have printed from 25 WRMS, is that starting on page 192522?</p>	<p style="text-align: right;">Page 1173</p> <p>1 Q. Did anyone assist you in preparing 2 this chart? 3 A. Not this chart. I did have some 4 legal assistance in compiling some of the documents 5 through discovery. I did not acquire all these 6 documents myself. Some of them were acquired from -- 7 I believe from Mobil, ExxonMobil, some from 8 regulatory agencies, and so on. But the first two 9 sheets is exclusively mine. 10 Q. All right. If you could turn to Tab 11 2 of your binder. I believe that's your map of plume 12 2. 13 And this was previously marked as Exhibit 12 14 earlier in your deposition. But I think the copy you 15 have in front you have is a lot better than the 16 photocopy that I have, so let me work with your copy. 17 Do you need one, Mike? 18 MR. AXLINE: Yes, if you have an extra. 19 MS. ROY: It's not that pretty, but... 20 Q. So looking at Exhibit 12. Can you 21 tell me which wells on this map you've determined 22 have actually been contaminated with MTBE from Mobil 23 18-JMY? 24 A. I can tell you which wells are 25 contaminated with MTBE. I can't tell you that the</p>
<p style="text-align: right;">Page 1172</p> <p>1 A. Yes. 2 Q. Through the end of the document? 3 A. Yes. 4 Q. All right. So referencing now the 5 beginning of the document, the first two pages. How 6 did you decide what pieces of information you wanted 7 to include in these summary notes for yourself? 8 A. I was looking at the date, the 9 occurrence of MTBE and TBA at the station. I was 10 looking at which wells they were -- the compounds 11 were detected in. I was looking at the 12 concentrations that were detected. And I was looking 13 at whether the well's located on site or off site. 14 And was looking to help me determine or try and 15 qualify the trend for MTBE and TBA occurrence. 16 Q. And why is the trend significant to 17 you? 18 A. Because we have contamination, MTBE 19 contamination, in production wells that are in 20 proximity to this site. We know that this site and 21 other sites are suspect sites for the sources of that 22 contamination. So we wanted to try and understand 23 what the -- what the occurrence is or the 24 contamination association is with this particular 25 site.</p>	<p style="text-align: right;">Page 1174</p> <p>1 contamination in those wells specifically came from 2 JMY. We are still looking at that station, as we are 3 the other stations on this map in proximity to those 4 wells, because they are all suspect sources for that 5 contamination. 6 Q. Which are the ones that actually have 7 MTBE in them? 8 A. Well, they are marked in yellow. I 9 believe you have that on your map. Wells MCWD-5, 10 MCWD-3B, MCWD-7. 11 Q. And has OCWD done anything to 12 determine precisely whether the MTBE in those wells 13 actually came from Mobil 18-JMY? 14 A. We are doing that now. We are 15 evaluating these stations as other stations here, and 16 we are working to understand the hydrogeology locally 17 for JMY, as well as these other suspect source 18 locations, and regionally in this area to try and 19 quantify where the contamination is coming from. 20 Q. Okay. So what exactly are you doing 21 right now specific to Mobil 18-JMY? 22 A. We are watching the trends in 23 contamination in the quarterly monitoring for the 24 various wells, and then we are determining -- trying 25 to understand what kind of mass might be in the</p>

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<p style="text-align: right;">Page 1175</p> <p>1 ground, how far that mass might have moved, and what 2 the timing on that mass might be in reaching the 3 wells. 4 Q. Okay. So it sounds like you told me 5 you're doing two separate things. One, you're 6 keeping an eye on the monitoring reports for the 7 various wells in the area to look for trends in the 8 concentration; is that correct? 9 A. We're reading the documents 10 as they come out for the station. I mean, it's 11 quarterly monitoring reports, any remediation 12 reports, communications with the agencies, and so on. 13 Q. Okay. So you're monitoring the 14 reports that are being generated by the consultant 15 that's working on the Mobil 18-JMY site; is that what 16 you're doing? 17 MR. AXLINE: Objection. Asked and answered. 18 THE WITNESS: That's one of the things 19 we are doing for this site and many other sites as 20 well. 21 BY MS. ROY: 22 Q. Other than monitoring those reports, 23 what else is OCWD doing specific to Mobil 18-JMY? 24 A. We prepared a scope of work that 25 we're seeking assistance on implementing to -- which</p>	<p style="text-align: right;">Page 1177</p> <p>1 with? 2 A. Well, it's a draft contract. 3 We're still waiting to get proposals and all 4 the viable information so we can make that 5 determination. 6 Q. So this was a draft contract, and you 7 were going to insert the name of the contractor 8 later? Or I mean, was there a particular 9 contractor that this contract was intended for? 10 A. Well, the scope of work. The scope 11 of work and the terms and conditions have been 12 prepared for whoever we are going to be able to 13 contract with. 14 Q. Is there a time frame as to when you 15 expect to have a contractor in place? 16 A. No. I couldn't venture to say. Not 17 without proper authorization. 18 Q. What do you mean by "not without 19 proper authorization"? 20 A. Well, we -- staff will prepare 21 contracts and estimate budgets, and so forth. But 22 it's really our Board of Directors that make the 23 determination. We're not authorized to do anything 24 without their authorization. 25 Q. Other than -- going back to the map,</p>
<p style="text-align: right;">Page 1176</p> <p>1 will eventually help us to model the fate and 2 transport of contamination in that area. 3 Q. And this is the scope of work that 4 was presented to Komex that you referenced earlier, 5 or is this something else? 6 A. This is -- part of the scope of 7 work is work that Komex was going to help us on, 8 and we have been working to acquire a new 9 consultant in their replacement. 10 Q. Has one been found yet? 11 A. We are working to contract with one. 12 We have prepared a contract, but we don't have one on 13 contract as yet. 14 Q. And which consultant is that? What 15 company? 16 A. Well, we have looked at several 17 consultants. So many of them are already doing work 18 for ExxonMobil and some of the other oil companies 19 that it's difficult to find one that has the kind of 20 expertise that we need and isn't conflicted for this 21 work. 22 But we're -- Roy Herndon and other managers 23 are looking at a number of companies. 24 Q. You mentioned that a contract was 25 prepared. With whom was that contract going to be</p>	<p style="text-align: right;">Page 1178</p> <p>1 other than the three yellow squares that you said 2 reflect wells that have MTBE in them, does OCW 3 believe that any of the other wells in the area are 4 threatened by MTBE from Mobil 18-JMY? 5 A. Those three wells are production 6 wells. So they are the ones that are -- that have 7 been impacted already. 8 There are other production wells in the area 9 that we think are threatened by MTBE. I did not 10 mention the monitoring wells that have MTBE detected 11 in them, but because they are not production wells, 12 we don't consider them to be the same kind of threat 13 as we would a production well. 14 Q. Understood. Focusing on production 15 wells. What specific wells on this map does OCWD 16 believe are threatened by Mobil 18-JMY? 17 A. There's a number of wells that 18 are indicated by a well symbol. You will see a 19 large system symbol in the legend. I can name a few 20 of them, if you want me to. 21 Q. Well, what I would like to know is 22 specifically which ones do you think are threatened 23 by Mobil 18-JMY? Is your understanding that if 24 it's on the map, any of these production wells are 25 threatened, or are there specific ones that you</p>

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<p style="text-align: right;">Page 1195</p> <p>1 contamination. Can you tell me what specifically 2 they should have done at this station in order to 3 contain the contamination? 4 A. I can't comment specifically what -- 5 what a company should do to contain it, only that it 6 needs to be contained. There's a variety of measures 7 that might be available that would be effective, but 8 whatever was done at the site did not contain the 9 contamination. 10 Q. All right. So your opinion is that 11 merely that it escaped, and so they weren't working 12 adequately, is that what your -- is that what your 13 opinion is? 14 I'm trying to understand what else do you 15 think they could have possibly done at this site? 16 MR. AXLINE: Objection. Asked and answered. 17 THE WITNESS: I can't comment specifically 18 on what steps should have been taken, only that the 19 steps that were taken did not stop the contamination 20 from leaving the site and getting into groundwater. 21 BY MS. ROY: 22 Q. Do you have any opinion as to what 23 should have been done to further delineate the 24 contamination? 25 A. They should have collected samples</p>	<p style="text-align: right;">Page 1197</p> <p>1 claim, and have not determined that they have had any 2 conversations regarding this site. 3 Q. All right. Has OCWD had any 4 communications with anyone at the Santa Ana Regional 5 <u>Water Quality Control Board specific to Mobil 18-JMY?</u> 6 A. I can't recall who the regulatory 7 -- who the regulator is for this site, that's been 8 assigned this site. But I -- we have had some 9 conversations with Ken Williams, who is the chief 10 of the Water Board UST unit, with -- that involved 11 all the sites. So this site was in the context of 12 our discussion, but it wasn't specific about just 13 this site. 14 Q. Okay. Other than those general 15 conversations with Ken Williams, do you recall any 16 other communications with the Regional Water Quality 17 Control Board specific to this site? 18 A. I don't recall. 19 Q. I do have a couple letters from Ken 20 Williams that I want to go over with you. 21 A. Okay. 22 Q. In preparation for today's 23 deposition, did you do anything to determine the 24 scope and extent of OCWD's communications with the 25 Regional Water Quality Control Board regarding this</p>
<p style="text-align: right;">Page 1196</p> <p>1 from deeper saturated zones and from farther away 2 from the station, at least in the downgradient 3 direction. 4 Q. And when did you form that opinion? 5 A. Well, I can't give you a specific 6 date, but it was in the process of evaluating the 7 site. 8 Q. Have you ever relayed to anyone at 9 ExxonMobil or their consultants that they needed to 10 be doing more to delineate at the site? 11 A. No, I haven't, because I 12 actually didn't join the District until after the 13 suit had been filed, and so I didn't think I was able 14 or allowed to have that kind of discussion with the 15 ETIC and have had no conversations with ETIC in 16 regard to this site. 17 Q. Are you aware of any communication by 18 OCWD prior to your arrival at OCWD with either 19 ExxonMobil or their consultants regarding this site? 20 A. No. I am not. 21 Q. Did you attempt to determine whether 22 or not any communication like that occurred? 23 A. I have talked with Roy Herndon and 24 other staff that I thought might have been involved 25 with all of the sites that are associated with our</p>	<p style="text-align: right;">Page 1198</p> <p>1 site? 2 A. I wasn't aware there was a specific 3 scope for communications that were specific to this 4 site. 5 Q. I'm not sure I understood that. 6 You weren't aware that there were any 7 specific communications, is that -- 8 A. Maybe I misunderstood your question. 9 Can you ask that again? 10 Q. Absolutely. 11 Did you do anything in preparation for the 12 deposition to determine whether or not OCWD had any 13 specific communications with the Regional Water 14 Quality Control Board regarding Mobil 18-JMY? 15 A. Oh. I certainly asked Roy Herndon, 16 chief hydrogeologist at the District, about 17 communications with the sites. Also discussed 18 communications with our Public Relations or 19 Communications Department to find out whether they 20 had had any discussion. And Craig Miller, who is 21 assistant general manager in charge of our 22 department as well, but none of them recalled any 23 communications with the Water Board on this site. 24 Q. Okay. You referenced Roy Herndon and 25 Craig Miller, and then you said there were some</p>

14 (Pages 1195 to 1198)

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<p style="text-align: right;">Page 1207</p> <p>1 OCWD, you've never seen other leaking underground 2 storage tank lists; is that correct? 3 A. I'm not certain what you asked me. 4 Are you asking -- if you're asking me have I seen 5 lists before I joined the District, it's possible, 6 but I can't recall. 7 Q. Once you joined the District, though, 8 did you do anything to review prior lists that were 9 dated prior to your joining the OCWD? 10 A. Yes. I had a discussion with Ken 11 Williams at the Regional Water Quality Control Board 12 in Santa Ana region and acquired a list of sites that 13 the Water Board had been maintaining. 14 I also talked to the Health Care Agency 15 about sites that it might have been looking at where 16 MTBE has been impacted. 17 And I talked to the City of Anaheim about 18 sites that -- on a list that it might have for 19 MTBE-impacted sites. 20 Q. And did all of those agencies provide 21 you with lists? 22 A. No. 23 Q. Which ones did? 24 A. I got a list from the Water Board. 25 The Anaheim had an old list. It was not a current</p>	<p style="text-align: right;">Page 1209</p> <p>1 sites that Orange County Health Care Agency 2 considered to be their priority sites for MTBE 3 impacts, but my memory is failing me because it 4 doesn't -- what I remember doesn't look like this. 5 It looks different than this. But apparently this 6 must be it. 7 Q. All right. But you're not certain? 8 A. But I'm not certain. I just -- it's 9 a subtle difference. I seem to remember a landscape 10 format rather than a portrait format. And I don't 11 remember the staff names associated with the 12 different sites. 13 Q. All right. Do you recall, though, 14 specifically asking for their highest priority list? 15 A. I don't remember using the terms 16 "highest priority list," but asking them if they had 17 a list of sites they considered to be key MTBE sites 18 that they were tracking. 19 Q. Did you give them sort of a set of 20 criteria, in terms of the type of sites that you were 21 interested in getting a list on? 22 A. Only that it involved MTBE and TBA. 23 Q. Flipping to the third page of the 24 document, which has got the Bates label 168137. I 25 notice that the first several line entries here talk</p>
<p style="text-align: right;">Page 1208</p> <p>1 list, or it was not a list that they were using 2 to track stations. So, in that sense, it wasn't 3 the same kind of list that the Water Board had, 4 where they were actually tracking sites and data 5 and information from those sites. 6 So I got some information from all of them. 7 Whether I prepared a list from my discussions with 8 them or whether they gave me actual lists, I can't 9 recall. 10 MS. ROY: All right. This might be what you 11 might be referring to. 12 THE REPORTER: Exhibit 74. 13 (Exhibit No. 74 was marked.) 14 BY MS. ROY: 15 Q. Exhibit 74 is a document with a Bates 16 label of OCWD MTBE 001-168135 through 168141. 17 Mr. Bolin, are you familiar with this 18 document? 19 A. I see my name, my signature on the 20 second page of the document. But I actually don't 21 remember the document. 22 Q. Okay. Going to the second page. You 23 said you see your signature. You don't recall 24 preparing this request for public records? 25 A. I do remember receiving a list of</p>	<p style="text-align: right;">Page 1210</p> <p>1 about a criteria. 2 Do you know whether that's something that 3 you created or that Orange County Health Care Agency 4 created? 5 A. I don't think that's anything 6 that I would have given the Health Care Agency. 7 I wouldn't ask them to identify what the greatest 8 potential to impacted drinking water was, but I 9 don't remember the conversation. So I can't recall 10 exactly what exchanged. 11 Q. Flipping several more pages in, to 12 168140. 13 A. I'm reading -- I'm sorry. 14 Q. Go ahead. 15 A. I beg your pardon. I'm reading page 16 3. 17 I can't recall specifically, but I believe 18 those are the Health Care Agency's criteria for the 19 list. 20 Q. All right. If you could flip a few 21 pages in to page 168140. Several lines down it looks 22 like there's an entry that Mobil 18-JMY is on their 23 list. 24 A. Huh-huh. 25 Q. Did you have any conversations with</p>

17 (Pages 1207 to 1210)

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<p style="text-align: right;">Page 1211</p> <p>1 Orange County Health Care Agency as to why Mobil 2 18-JMY was on the list? 3 A. No. 4 Q. Did you have any conversation with 5 them about to what extent they were monitoring Mobil 6 18-JMY? 7 A. No. 8 Q. Okay. And did you have any 9 conversations with them about what should be done to 10 address the contamination from Mobil 18-JMY? 11 A. I don't believe so. 12 Q. Other than asking Orange County 13 Health Care Agency for their list of highest priority 14 sites, did you have any other sort of communication 15 with that entity about Mobil 18 JMY? 16 A. I don't recall any specific 17 communications that were specific about 18 JMY. 18 MS. ROY: Okay. Let's do one last big one, 19 and then maybe take a break. Does that sound good to 20 you? 21 THE WITNESS: Yes. 22 MS. ROY: All right. 75? 23 THE REPORTER: Exhibit 75. 24 (Exhibit No. 75 was marked.) 25 BY MS. ROY:</p>	<p style="text-align: right;">Page 1213</p> <p>1 Q. All right. Are you aware of any sort 2 of practice that relates -- for OCWD when they 3 receive these sort of lists? 4 A. No. 5 Q. Okay. 6 A. I don't know what the context of 7 the document is or -- I mean, I don't know what the 8 content is. I don't know what the purpose of 9 receiving the document is, so I can't comment on 10 what was done with it. 11 Q. And do you have any idea as to who at 12 OCWD it would have been forwarded to? 13 A. No, I don't know. I haven't seen it. 14 It appears to have come from an OCWD file, but I 15 don't know whose file this would have been. 16 Q. All right. Is there any way that we 17 can determine where it came from within OCWD? 18 A. I honestly don't know how you would 19 do that, except to query each department, and show it 20 around, and try and find somebody who recognizes it. 21 MS. ROY: All right. Thank you. Why don't 22 we go ahead and take a short break and resume. 23 THE VIDEOGRAPHER: Going off the record. 24 The time is 10:28 a.m. 25 (Recess taken.)</p>
<p style="text-align: right;">Page 1212</p> <p>1 Q. Exhibit 75 is a pretty large 2 document. It's Bates labeled OCWD-MTBE-001-064112 3 through 064246. 4 Mr. Bolin, have you ever seen this document 5 before? 6 A. I don't recall having seen this 7 document. 8 Q. Have you seen printouts similar to 9 this one that perhaps were from a different date? 10 A. I don't think so. 11 Q. I notice that -- well, first of all, 12 the title of it is, "County of Orange environmental 13 health groundwater cleanup program, all Site Summary 14 Report by city, name, by street address." 15 I notice there's a stamp here that says, 16 "Received January 09, 1997, OCWD." Do you see that? 17 A. Yes. 18 Q. Is that something that's commonly 19 applied to documents when they come in to OCWD? 20 A. I can't comment whether it's common, 21 but I have seen it often. 22 Q. All right. Is it safe to trust the 23 stamp and assume that it was received roughly on 24 January 9th, 1997, by OCWD? 25 A. That would be my conclusion.</p>	<p style="text-align: right;">Page 1214</p> <p>1 THE VIDEOGRAPHER: We are back on the 2 record. The time is 10:51 a.m. This marks the 3 beginning of video No. 2 in the deposition of David 4 P. Bolin. 5 BY MS. ROY: 6 Q. All right. Mr. Bolin, directing your 7 attention back to Mobil 18-JMY. So far we have 8 talked about OCWD's communications with the Orange 9 County Health Care Agency and the Santa Ana Regional 10 Water Quality Control Board. 11 Has OCWD had any communications with the 12 California Department of Health related to Mobil 13 18-JMY? 14 A. Not that I'm aware of. 15 Q. Okay. Are you aware of 16 communications by OCWD with any other regulator of 17 any kind related to Mobil 18-JMY? 18 A. I can't recall any other 19 communications. 20 Q. Now, shifting your attention to 21 actual water users. Has OCWD had any communications 22 with Mesa Consolidated Water District about Mobil 23 18-JMY? 24 A. I don't know that they had any 25 conversations that were specific to that station.</p>

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<p style="text-align: right;">Page 1223</p> <p>1 BY MS. ROY:</p> <p>2 Q. Is there a way to break it down by</p> <p>3 plume and to attribute costs specific to plume 2?</p> <p>4 MR. AXLINE: Objection. Asked and answered.</p> <p>5 THE WITNESS: No.</p> <p>6 BY MS. ROY:</p> <p>7 Q. All right. We have talked now about</p> <p>8 what OCWD has done in the past with respect to Mobil</p> <p>9 18-JMY. I'd like to know now what OCWD intends to do</p> <p>10 in the future with respect to Mobil 18-JMY. Can you</p> <p>11 give me a list of what you plan to do?</p> <p>12 A. Actually, this is Exhibit 48, I think</p> <p>13 you called it. There are two exhibit numbers on</p> <p>14 here. But this is basically the list.</p> <p>15 Q. All right. Why don't we walk through</p> <p>16 it, and you tell me specifically which tasks you</p> <p>17 think need to happen with respect to the Mobil</p> <p>18 18-JMY.</p> <p>19 A. I can comment on some of the tasks</p> <p>20 that are going to be necessary, such as retaining an</p> <p>21 expert to provide technical assistance to us. But</p> <p>22 I can't be specific as to which ones we definitely</p> <p>23 are or definitely are not going to do, because</p> <p>24 that hasn't been determined yet.</p> <p>25 Q. Is there a timetable set for when it</p>	<p style="text-align: right;">Page 1225</p> <p>1 understand from my perspective why I kind of want to</p> <p>2 know when you guys are going to decide what you want</p> <p>3 to do with respect to this station.</p> <p>4 Have you personally been charged with trying</p> <p>5 to get a consultant in place by a certain date?</p> <p>6 A. No.</p> <p>7 Q. Okay. Has anyone given you sort of a</p> <p>8 general time frame as to when they would like to see</p> <p>9 a consultant hired for OCWD?</p> <p>10 A. As soon as we can. But no specific</p> <p>11 deadlines.</p> <p>12 Q. Okay. Now, focusing on remediation.</p> <p>13 Has OCWD taken any action with respect to remediation</p> <p>14 of any sort of contaminant release from Mobil 18-JMY?</p> <p>15 A. No.</p> <p>16 Q. Okay. Do they plan to in the future?</p> <p>17 A. We think it's substantially likely</p> <p>18 that we are going to need to, given that this station</p> <p>19 has had a release of MTBE and TBA, it's migrated off</p> <p>20 site, it's not being captured by remediation at the</p> <p>21 site, nor has it ever been captured or contained by</p> <p>22 remediation at the site, and that we have nearby</p> <p>23 production wells that have been impacted by the same</p> <p>24 compound that has been released at this site. We</p> <p>25 don't -- we know that all of the stations in this area</p>
<p style="text-align: right;">Page 1224</p> <p>1 will be determined what needs to be done with respect</p> <p>2 to Mobil 18-JMY?</p> <p>3 A. This question has been asked a couple</p> <p>4 of times for other stations, but the answer is the</p> <p>5 same. There is no timetable. I can't give you a</p> <p>6 specific time. Certainly not before we're able to</p> <p>7 secure an expert -- or technical expert to assist us</p> <p>8 with these -- with the evaluations and the remedial</p> <p>9 planning.</p> <p>10 Q. So if I understand your testimony</p> <p>11 correctly -- and tell me if I am wrong -- basically</p> <p>12 all the future action that OCWD intends to take with</p> <p>13 respect to Mobil 18-JMY is contingent on first hiring</p> <p>14 a new consultant to assist you; is that correct?</p> <p>15 MR. AXLINE: Objection. Mischaracterizes</p> <p>16 testimony.</p> <p>17 THE WITNESS: I don't know if that's fair to</p> <p>18 say, that we won't do anything until we're able to</p> <p>19 hire an expert. I won't say that we will do -- what</p> <p>20 we will do before we hire the expert. I guess it</p> <p>21 depends on who the expert is and when we're able to</p> <p>22 retain them.</p> <p>23 BY MS. ROY:</p> <p>24 Q. Okay. Now, we've sort of talked</p> <p>25 about sort of this time frame, and you can obviously</p>	<p style="text-align: right;">Page 1226</p> <p>1 are suspect source locations for that contamination.</p> <p>2 So I can't give you a plan as to when a lot</p> <p>3 of this will occur. I simply don't know. We have a</p> <p>4 lot of work to do yet.</p> <p>5 Q. And you don't know, in terms of the</p> <p>6 type of remediation that OCWD intends to engage in;</p> <p>7 is that correct?</p> <p>8 A. No. No.</p> <p>9 Q. All right. Okay. You mentioned</p> <p>10 earlier that you have reviewed some of the regulatory</p> <p>11 files for Mobil 18-JMY; is that correct?</p> <p>12 A. Documents pertaining to this site</p> <p>13 that are in agency files, yes.</p> <p>14 Q. And is OCWD's view that -- with</p> <p>15 respect to OCHCA, that the work that's been done</p> <p>16 related to this site has been competent?</p> <p>17 MR. AXLINE: Objection. Asked and answered.</p> <p>18 THE WITNESS: I'm not rendering an opinion</p> <p>19 whether it's competent or incompetent, either way.</p> <p>20 But the oversight of this site thus far has not</p> <p>21 resulted in containment of the contamination.</p> <p>22 Contamination has escaped the site.</p> <p>23 BY MS. ROY:</p> <p>24 Q. Okay. So what should the Orange</p> <p>25 County Health Care Agency have done differently, in</p>

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1 terms of overseeing this site?
 2 A. I don't know if they have been able
 3 to do anything differently. They cannot dictate the
 4 kind of remediation that should be implemented. They
 5 can only complement -- comment on remediation that is
 6 planned or proposed by the RP, the responsible party,
 7 or the consultant working for that site.

8 Therefore, they can -- they can't dictate
 9 where wells will be positioned or the specifications
 10 of those wells or what technology will be used to
 11 install those wells. They can only comment on work
 12 plans or proposals provided by the consultant working
 13 for the site.

14 So what could they have done? I don't know
 15 that they could have done anything differently. Or
 16 if they had done anything differently, it would have
 17 resulted in a different situation, different set of
 18 circumstances.

19 The one having control over the site is
 20 the -- is the site owner/operator/generator and their
 21 consultant.

22 BY MS. ROY:

23 Q. Did you -- having reviewed the
 24 various files, were there any instances where -- that
 25 Health Care Agency did not provide comments in a

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1 timely fashion?
 2 A. I can't recall any specific instances
 3 in this case specific to this site.
 4 Q. Okay. Do you recall any instances
 5 where you felt that the Health Care Agency's comments
 6 were insufficient or inadequate?

7 A. I don't recall any specific examples
 8 where I thought their comments -- the Health Care
 9 Agency's comments were insufficient or inadequate.

10 Q. And am I correct that OCWD never told
 11 the Health Care Agency that they should be doing
 12 anything differently? Is that correct?

13 A. I don't recall any specific comments
 14 to the Health Care Agency that they should be doing
 15 anything different.

16 Q. Now, focusing on the Regional Board.
 17 Having reviewed the various files that are
 18 out there, did you see any instances where the
 19 Regional Board was not responding in a timely fashion
 20 to issues related to Mobil 18 JMY?

21 A. My answer is the same as it was for
 22 the Health Care Agency. I don't recall any such
 23 instances.

24 Q. Okay. Do you recall any instances
 25 where you felt that their response was insufficient

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1 or inadequate?

2 A. I don't recall any specific occasions
 3 when I thought their response was insufficient or
 4 inadequate.

5 Q. And are there any instances where the
 6 OCWD has told the Regional Board that they should be
 7 doing something differently with respect to Mobil 18
 8 JMY?

9 A. I don't recall any specific such
 10 instances.

11 Q. All right. Now, I'm going to totally
 12 shift focus on you.

13 You mentioned earlier that you felt that
 14 there was contamination that had escaped remediation
 15 at Mobil 18-JMY; is that correct?

16 A. Yes.

17 Q. Okay. Do you have a sense as to how
 18 much contamination has escaped?

19 A. No, I don't. You're asking me to
 20 quantify the mass, and I can not.

21 Q. Do you have even sort of a
 22 guesstimate as to the mass?

23 A. No.

24 MR. AXLINE: Objection. Calls for
 25 speculation.

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1 BY MS. ROY:

2 Q. Do you have an idea as to when the
 3 contamination escaped remediation at Mobil 18 JMY?

4 A. I'm going to refer to my summary.

5 I don't know when the contamination escaped
 6 remediation. I can only comment on when remediation
 7 was initiated. It was in April 1997. I began
 8 pumping out selected wells in which I assume
 9 groundwater contamination had been detected and
 10 started pumping out the tank cavity in February '98.
 11 I don't know when the releases occurred that resulted
 12 in off-site contamination, so I can't -- I can't
 13 quantify what that time frame is between the release
 14 and when remediation occurred. Only that there is
 15 contamination detected off site, and that it's
 16 unlikely, more than unlikely, that any on-site
 17 remediation will capture or contain that off-site
 18 contamination.

19 Q. And what are you relying upon to draw
 20 that conclusion?

21 A. Analytical results and data and
 22 information provided in the report -- I believe was
 23 submitted as an exhibit, but let me refer you to the
 24 binder in Tab 8. There is a report, which I believe
 25 I've cited already, ETIC's engineering report dated

22 (Pages 1227 to 1230)

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<p style="text-align: right;">Page 1283</p> <p>1 BY MR. ANDERSON:</p> <p>2 Q. Am I correct that that is a no, then,</p> <p>3 that you have not looked through defendants'</p> <p>4 documents?</p> <p>5 A. Well, I don't know what is in</p> <p>6 defendants' documents. So I can't say that I have</p> <p>7 seen them or haven't seen them. I'm assuming that</p> <p>8 everything that's in this binder is in defendants'</p> <p>9 documents, but I could be wrong.</p> <p>10 Q. Do you understand that defendants,</p> <p>11 like Chevron, have produced documents to OCWD in this</p> <p>12 litigation?</p> <p>13 A. I understand that defendants in this</p> <p>14 dispute have provided documents, but I don't know</p> <p>15 that they have all come to Orange County Water</p> <p>16 District.</p> <p>17 Q. Have you looked at any of the</p> <p>18 documents Chevron has provided to Orange County Water</p> <p>19 District in this litigation?</p> <p>20 A. I don't know if I have or haven't. I</p> <p>21 haven't searched the documents. I don't have a</p> <p>22 specific set of documents that I think you're</p> <p>23 referring to. So I don't know whether I have seen</p> <p>24 any documents that are --</p> <p>25 Q. I understand. And I think maybe</p>	<p style="text-align: right;">Page 1285</p> <p>1 Q. Have you ever seen any letters from</p> <p>2 OCWD to Chevron or any of its consultants regarding</p> <p>3 this site?</p> <p>4 A. I don't recall any.</p> <p>5 Q. And you've never personally called</p> <p>6 Chevron or any of their consultants, correct?</p> <p>7 A. I wouldn't do that.</p> <p>8 Q. Is that a "no"?</p> <p>9 A. That's a "no."</p> <p>10 Q. Do you have any firsthand knowledge</p> <p>11 about the alleged gasoline releases at this site?</p> <p>12 A. I have not personally observed</p> <p>13 releases from this site. I think that's what you're</p> <p>14 asking me. The answer is no.</p> <p>15 Q. Sure. You're only relying on reports</p> <p>16 from other people in terms of your knowledge</p> <p>17 regarding any releases at this site?</p> <p>18 A. I'm relying on reports that are</p> <p>19 prepared by Chevron's consultant. I have no reason</p> <p>20 to dispute those reports, and so the information I</p> <p>21 glean from the reports, I think, is reasonably</p> <p>22 accurate. Or if it's not accurate, it's reasonably</p> <p>23 reliable.</p> <p>24 Q. <u>Do you recall which regulatory agency</u></p> <p>25 <u>is overseeing the remediation at this site?</u></p>
<p style="text-align: right;">Page 1284</p> <p>1 we're miscommunicating. I understand that maybe some</p> <p>2 of the same documents in Chevron's productions may be</p> <p>3 part of these other productions, but have you ever</p> <p>4 looked at a set of documents, whether or not they are</p> <p>5 repetitive of other documents or not, that Chevron</p> <p>6 has produced in this litigation?</p> <p>7 A. I have not gone through the exercise</p> <p>8 of sifting through a set of documents that was</p> <p>9 specifically produced by Chevron. But documents that</p> <p>10 I have looked through might have been some of those</p> <p>11 documents. I simply don't know.</p> <p>12 Q. Sure. Have you ever been out to</p> <p>13 personally see Chevron site 9-5401?</p> <p>14 A. I have gone out to see some of them,</p> <p>15 but I haven't recorded which ones. And I can't say</p> <p>16 whether I've seen this site or not.</p> <p>17 Q. Do you know if OCWD has ever</p> <p>18 communicated with the owners of Chevron 9-5401 or its</p> <p>19 consultants regarding any alleged gasoline releases</p> <p>20 at this site?</p> <p>21 A. I can't recall any such conversations</p> <p>22 I'm not aware of whether anybody else has talked to</p> <p>23 Chevron, or Chevron's consultant. Cambria is listed</p> <p>24 here. I don't know who all their consultants have</p> <p>25 been.</p>	<p style="text-align: right;">Page 1286</p> <p>1 <u>A. I don't, off the top of my head. I</u></p> <p>2 <u>believe it is Orange County Health Care Agency.</u></p> <p>3 <u>Q. Has OCWD spoken with Orange County</u></p> <p>4 <u>Health Care Agency about this site?</u></p> <p>5 <u>A. Not that I recall.</u></p> <p>6 <u>Q. Have they ever written to -- has OCWD</u></p> <p>7 <u>ever written to the Orange County Health Care Agency</u></p> <p>8 <u>about this site?</u></p> <p>9 <u>A. I have not -- I'm not aware of</u></p> <p>10 <u>whether anybody else has.</u></p> <p>11 <u>Q. Did you check Orange County Water</u></p> <p>12 <u>District's files to determine whether or not anybody</u></p> <p>13 <u>from OCWD had written to the Health Care Agency?</u></p> <p>14 <u>A. I have the files, and I don't recall</u></p> <p>15 <u>seeing anything in there.</u></p> <p>16 <u>Q. Does OCWD disagree with anything that</u></p> <p>17 <u>the Health Care Agency has done in regards to their</u></p> <p>18 <u>remediation at this site?</u></p> <p>19 <u>A. I'm sorry. I'm not sure I heard your</u></p> <p>20 <u>whole question.</u></p> <p>21 <u>Q. Sure. Does OCWD disagree with</u></p> <p>22 <u>anything that the Health Care Agency has done in</u></p> <p>23 <u>regards to remediation at Chevron 9-5401?</u></p> <p>24 <u>A. The Health Care Agency does not</u></p> <p>25 <u>actually conduct the remediation. They provide</u></p>

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<p style="text-align: right;">Page 1287</p> <p>1 comments to -- to the consultant. And we're not 2 <u>disputing comments that might have been provided. I</u> 3 <u>may not have seen all of them. In fact, I'm sure I</u> 4 <u>haven't. So I haven't seen anything that I would</u> 5 <u>argue with the Agency about.</u> 6 Q. Has OCWD spoken with any other 7 <u>regulatory agencies about this site?</u> 8 A. Specific to the site, I'm not certain 9 <u>of. But I know that the site was probably included</u> 10 <u>in general discussions, the general context in</u> 11 <u>discussions with -- with the Santa Ana Regional Water</u> 12 <u>Quality Control Board.</u> 13 Q. When you say "general discussions," 14 <u>do you think that the site 9-5401, was it ever</u> 15 <u>specifically named in any of those discussions?</u> 16 A. I don't recall. We didn't talk about 17 <u>this site specifically. But it was certainly on the</u> 18 <u>list of sites that we got from the Water Board.</u> 19 Q. When you say, "got from the Water 20 <u>Board," what do you mean?</u> 21 A. The Water Board provided us with a 22 <u>list of sites in which -- at which there's been MTBE</u> 23 <u>releases. This site is on that list.</u> 24 Q. And you asked for that list; is that 25 correct?</p>	<p style="text-align: right;">Page 1289</p> <p>1 BY MR. ANDERSON: 2 Q. And I would direct you to the second 3 page of Exhibit 80, where you note that it's HB-1. 4 Excuse me. Did I say HB-1? I meant to say HB-4. 5 A. Oh. Yes. I stand corrected. 6 Q. Should we rely on the notes that you 7 have here on Exhibit 80, or do you think it's 8 different now after having looked at this Tab 2 in 9 your binder? 10 A. Well, I'm confused by the 11 inconsistency. This -- allow me just a second to 12 refer to the attached tables. 13 No, I cannot account for why it's not on the 14 map, but I think it's probably correct in the table. 15 Q. So that -- the table says that HB-4 16 is the closest well, so that's what you think is the 17 closest well? 18 A. Well, with the information I have in 19 front of me right here now, I think that's correct. 20 Q. Do you know whether or not HB-4 is 21 downgradient from Chevron 9-5401? 22 A. Well, it's not on my map. I cannot 23 recall where it's located. So I can't say for 24 certain. 25 Q. You can't find -- HB-4 is right there</p>
<p style="text-align: right;">Page 1288</p> <p>1 A. Yes. 2 Q. Do you know what the -- let me 3 just -- what exhibit are we on? 4 THE REPORTER: We are on 80. 5 (Exhibit No. 80 was marked.) 6 BY MR. ANDERSON: 7 Q. Exhibit 80 is Bates labeled OCWD 8 MTBE-001192504 through 192511. 9 Can you identify that document? 10 A. It looks like a list of some of the 11 materials that I had prepared for deposition. 12 Q. And I have some specific questions 13 about this, but just for right now I wanted you to 14 have that in front of you labeled as an exhibit, 15 because I'm going to ask you some questions where you 16 may want to refer to it. 17 Do you know what the closest drinking water 18 production well is to this site? "This site" being 19 9-5401. 20 MR. AXLINE: Do you mean production well, 21 Counsel? 22 MR. ANDERSON: Drinking water production 23 well. 24 THE WITNESS: I believe the closest well is 25 WM-RES2.</p>	<p style="text-align: right;">Page 1290</p> <p>1 on your map, if you're looking for it. 2 A. Oh, I'm sorry. I can read. Yeah. 3 It's right here in front of me. You're right. 4 This is the -- I can't -- I can't explain 5 the discrepancy. 6 Q. What discrepancy? 7 A. Well, the map indicates that HB-4 is 8 not the closest well, nearest drinking water well, 9 and yet that is what I have written in these notes. 10 Now, it's possible I had indicated that that 11 is the nearest production well downgradient from the 12 site, but there appears to be -- there is a possible 13 error here, and I can't explain it. 14 Q. But you think looking at the map, 15 that WM-RES2 is the closest drinking well? 16 A. WM-RES2 is closer to the Chevron site 17 than HB-4. 18 Q. Do you know if that's a drinking well 19 or not? 20 A. It is a production well. 21 Q. Production well. Is this map drawn 22 to scale? 23 A. I believe that it is. 24 Q. Who superimposed these logos and the 25 station names on this map?</p>

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1 A. Our GIS specialist.
 2 Q. And who is that?
 3 A. It is Linda Cokey.
 4 Q. Do you know what she did to determine
 5 where on this map to place these stations?
 6 A. I gave her addresses for these
 7 stations. She located them in our database. It's a
 8 Thomas Brothers Guide database.
 9 Q. Do you know how she decided where to
 10 put these drinking water wells on this map?
 11 A. They are already located in our GIS
 12 database system.
 13 Q. Do you know who the water producer is
 14 associated with WM-RES 2?
 15 A. The City of Westminster.
 16 Q. Have you contacted the City of
 17 Westminster to discuss Chevron 9-5401?
 18 A. No.
 19 Q. Do you know what the water producer
 20 is associated with HB-4?
 21 A. It's the City of Huntington Beach.
 22 Q. Have you contacted the City of
 23 Huntington Beach to discuss Chevron 9-5401?
 24 A. No.
 25 Q. Do you plan to contact either of

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1 those water producers to discuss Chevron 9-5401?
 2 A. That's not my authority.
 3 Q. Does OCWD plan to contact either of
 4 those water producers concerning Chevron 9-5401?
 5 A. I don't know whether they will be
 6 doing that or not.
 7 Q. Has OCWD ever told the City of
 8 Westminster or the City of Huntington Beach that MTBE
 9 may impact their wells as a result of a leak from
 10 9-5401?
 11 A. They know about leaks from various
 12 stations. I don't know -- this discussion is had
 13 with the producers. I didn't have the discussion.
 14 It was in a producers' meeting.
 15 I don't know whether Chevron was
 16 specifically mentioned as one of the suspect sources
 17 or not. But I know that it has been conveyed that
 18 all the defendants have been identified as suspect or
 19 associated with suspect source locations for -- in
 20 all the plumes. I can't say that Chevron was singled
 21 out specifically.
 22 Q. And if you could explain the second
 23 part of that sentence -- or your answer, excuse me.
 24 When you said that Chevron has been identified as a
 25 suspect source, they were identified to the water

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1 producers as a suspect source?
 2 A. A Chevron station.
 3 Q. A Chevron station. But you don't
 4 know if it was specifically named 9-5401?
 5 A. That's correct.
 6 Q. So Orange County Water District has
 7 told the City of Westminster that a Chevron station
 8 could be susceptible source of the contamination?
 9 A. No. I'm saying -- I haven't -- I
 10 didn't participate in the conversation. I know that
 11 the gist of the conversation is that there's been
 12 some detections of MTBE in drinking water production
 13 wells. And that there is a list of defendants in a
 14 dispute -- list of defendants in a dispute, an
 15 ongoing dispute, and the list is known to the
 16 producers.
 17 But you're asking me whether this Chevron
 18 station was identified with regards to any specific
 19 wells. I don't think so.
 20 Q. And within Orange County Water
 21 District, have you had any conversations with any
 22 other OCWD employees about Chevron 9-5401?
 23 A. I don't recall any specific
 24 discussions, unless -- well, I might have had a
 25 discussion with Roy Herndon, but only in the context

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1 of the stations in which we were evaluating. But not
 2 anything specific, and it certainly would have been
 3 before the deposition.
 4 Q. Before this deposition, you mean?
 5 A. Not today. Before we started the
 6 deposition process.
 7 Q. Do you recall any specifics of that
 8 conversation dealing with 9-5401?
 9 A. No. But I'm sure there must have
 10 been some discussion when we identified -- when we
 11 selected sites, focus sites, Chevron station 9-5401
 12 was identified as one of the focus sites. So their
 13 name must have come up, but I don't know what the
 14 context would have been outside of "This is going to
 15 be a focus site."
 16 Q. Do you recall when that conversation
 17 might have happened?
 18 A. No, I don't.
 19 Q. Do you know if the Orange County
 20 Water District Board of Directors has ever discussed
 21 this site?
 22 A. No, I don't.
 23 Q. Do you know whether any subcommittees
 24 of the Board of Directors, the Orange County Water
 25 District Board of Directors, has ever discussed this

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1 A. No. No. That's what I just said. I
2 can't. I can't, because MTBE moves fairly freely.
3 It's resistant to retardation and it's resistant to
4 degradation. So because it moves so freely, and I
5 cannot imagine, I cannot think of any circumstances
6 where MTBE is not going to move in its natural state,
7 or in the natural state -- in hydrogeology. In the
8 hydrogeologic regime beneath the site, I cannot think
9 of any passive remedial technology that will
10 effectively prevent impacts drinking water.
11 Q. So then my original question was:
12 Does OCWD think that active remediation is required
13 at each site to remediate MTBE? And the answer would
14 be, yes, you do think that active remediation is
15 always required?
16 A. No. I think active containment is
17 always required, not necessarily remediation.
18 Like I said, once it's contained, as long as
19 the contamination is contained, it doesn't really
20 matter what kind of remediation is going to take
21 place. I would suggest -- in fact, I would submit
22 that active remediation would be the better choice.
23 But it's not necessary as long as you can control the
24 risk.
25 Q. How would you contain the MTBE

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1 without active remediation?
2 A. Creating a groundwater depression.
3 Changing flow direction. Putting up barriers to
4 flow. Again, I'm not an expert in this area, but
5 there's several different ways to control flow.
6 Q. And, generally speaking about
7 remediation again, does OCWD think that remediation
8 should begin before the groundwater flow or the
9 extent of the plume are known?
10 A. It depends. It depends on what kind
11 of release has occurred. It depends on the
12 complexity of the subsurface. Hydrogeology is very
13 complex throughout this basin. It's not consistent.
14 It's not the same throughout the basin. It's very
15 complex.
16 And so it depends on how old the release is,
17 again, the size of the release; the circumstances of
18 the release. If you're close to a drinking water
19 well, I would suggest that rapid response would be
20 more appropriate. If it's close to a storm drain or
21 if it's close to some -- to other wells, not
22 necessarily production wells, but other wells that
23 might act as conduits, or if it's close to some
24 sensitive receptor, then rapid response would be the
25 order of the day.

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1 In other cases, if it's a nominal release,
2 if it is within a tank pit and the tank pit is lined,
3 for example, then a more casual response would
4 probably be okay.
5 Q. Has OCWD evaluated the remediation
6 occurring at site 9-5401?
7 A. Well, we have looked to see what the
8 remediation is. We know -- I mean, we have reviewed
9 the remedial history of site. I'm not sure what you
10 are asking me.
11 Q. And have you -- what remediation has
12 occurred at the site?
13 A. Oh. None, according to the records I
14 saw.
15 Q. Has anything begun in the last year,
16 that I know of?
17 A. I -- I don't know.
18 Q. Do you know whether or not oxygen
19 injection and over-purging were approved in 2008 by
20 the Orange County Health Care Agency?
21 A. I know that it was -- now that you
22 have mentioned it, I do recall that it was proposed,
23 but I don't know whether it's been approved. I know
24 it was awaiting approval or some determination by the
25 Agency.

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1 Q. Do you disagree with the fact that
2 active remediation has not occurred at the site yet?
3 A. I don't know what's happened at the
4 site.
5 Q. Well --
6 A. All I'm saying is that the records I
7 reviewed did not indicate that there was remediation
8 at the site.
9 Q. And if that's --
10 A. I --
11 Q. Go ahead.
12 A. I was going to say, if oxygen is
13 being injected in the site to react with the
14 compounds, if you're saying that's being done now,
15 then I believe you.
16 But that's still passive remediation, and it
17 does not prevent the contamination from flowing off
18 site.
19 Q. So you think something more needs to
20 be done at this site to prevent the MTBE from leaving
21 the site; is that correct?
22 A. Well, yes. I think something needs
23 to be done at this site to prevent MTBE from leaving
24 the site.
25 Q. And how would you propose doing that?

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<p style="text-align: right;">Page 1327</p> <p>1 A. Oh, okay. Because the amount that 2 has gone off site is exactly the same amount that has 3 escaped remediation. There hasn't been any 4 remediation. 5 Q. So what's your answer? 6 A. It's the same. 7 Q. Could you please repeat that answer? 8 A. It's the same. 9 MR. AXLINE: Objection. Asking the witness 10 to answer the same question repeatedly is obviously 11 subject to an asked and answered objection. 12 THE WITNESS: Maybe I'm a little confused. 13 Perhaps you could ask me the question again. 14 BY MR. ANDERSON: 15 Q. Do you contend the amount of MTBE -- 16 does OCWD think the amount of MTBE that has escaped 17 remediation is significant? 18 A. Well, I think my previous answer -- 19 well, it depends on what you mean by "significant." 20 It's meaningful, in that it causes us 21 to have to take some steps to determine what the 22 threat is to drinking water wells, to production 23 wells. 24 We have a source in proximity to drinking 25 water wells. There's been impacts in those wells.</p>	<p style="text-align: right;">Page 1329</p> <p>1 consultants for Chevron have not tested it; 2 otherwise, it would have been in their reports. 3 Q. Do you think that MTBE will 4 migrate -- MTBE from this site will migrate to the 5 deep aquifer? 6 A. Yes. 7 Q. What do you base that on? 8 A. My understanding of hydrogeology and 9 my understanding of hydrogeology in the pressure 10 zone. 11 It -- testing groundwater directly beneath 12 the site might not detect anything, but it doesn't 13 necessarily flow straight down. It flows laterally, 14 and then it drops. 15 There is a downward gradient in this area 16 between the shallow aquifer and the deeper aquifer. 17 Water is being pumped out of that deeper aquifer, 18 called the principal aquifer, to provide drinking 19 water to the community. And that actually pulls in 20 contamination, in this case MTBE and TBA, into the 21 well when that happens, when it gets down into the 22 principal aquifer. 23 We have downward gradient. It's moving 24 laterally towards the wells. I think it's going to 25 get in there.</p>
<p style="text-align: right;">Page 1328</p> <p>1 There are a number of sources in this area that we 2 think are the potential sources of the impacts in 3 those wells, so we have to go to some lengths to 4 understand what the impact from this particular site 5 is. 6 That is what I would consider to be a 7 significant escape or significant off-site migration 8 or a significant mass, whatever -- however you want 9 to refer to it. 10 Q. So you're still investigating? 11 A. Yes. 12 Q. Do you think that the MTBE -- that 13 the allegedly -- that the alleged release of MTBE 14 gasoline has impacted the deep aquifer from this 15 station? 16 A. I don't know. 17 Q. Have you tested the deep aquifer 18 beneath this site? 19 A. Directly beneath the site? 20 Q. Yes. 21 A. No. 22 Q. Do you know if any other regulatory 23 agencies have tested the deep aquifer beneath this 24 site? 25 A. No, I don't. I know that the</p>	<p style="text-align: right;">Page 1330</p> <p>1 Q. Does there need to be a conduit for 2 it to get down to the deep aquifer? 3 A. It doesn't necessarily -- it doesn't 4 have to be an artificial conduit. It could be just a 5 natural conduit. 6 Q. Have you identified -- has OCWD 7 identified any conduits, whether they are artificial 8 or natural, in the area that would allow MTBE to get 9 to the deep aquifer? 10 A. The production wells themselves can 11 sometimes serve as conduits. Sometimes contamination 12 will get into the shallow regions of a production 13 well and then flow down the annulus or flow down the 14 filter pack, or what have you. 15 In this case, there are a number of wells 16 that are in proximity to this site. I'm looking to 17 see if I have screen intervals. I have boring 18 depths. I don't have the screen intervals. 19 But given that water doesn't necessarily 20 have to go into the screen; it can go into just a 21 hole in the ground. Some of these wells go well into 22 the production aquifer. 23 Q. Now, on your notes you say it's a 24 potential migration path. Have you confirmed whether 25 or not it's a migration path or not?</p>

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<p style="text-align: right;">Page 1331</p> <p>1 A. No. That's why we wrote it was a 2 potential migration path. 3 Q. Does OCWD think that any releases 4 from 9-5401 have impacted any production wells? 5 A. We don't know. This is a suspect 6 site, along with the other sites in this proximity. 7 We know we've had detections in production wells, 8 given that this is a suspect site, suspect source 9 site for that contamination, this is certainly a 10 possibility. 11 Q. What are you doing to determine 12 whether or not gasoline containing MTBE allegedly 13 released from this site has impacted any production 14 wells? 15 A. Well, we're continuing to test water 16 in the basin. We're trying to evaluate this site. 17 along with other sites, and at some point in time 18 we'll be conducting some mathematical modeling, some 19 fate and transport modeling, to determine what the 20 disposition of contamination from this site might be 21 with regards to the wells. 22 Q. You haven't started any of that 23 modeling yet? 24 A. No. 25 Q. What additional information do you</p>	<p style="text-align: right;">Page 1333</p> <p>1 but other -- there's other pollutants on the list as 2 well. 3 Q. That's not a true capture zone 4 production, is it not? 5 A. No, it is not. 6 MR. ANDERSON: I don't think I have that 7 much longer. But if you guys need to take a break, 8 we can take one. 9 MR. AXLINE: It's up to you. 10 THE WITNESS: I could use one, if you don't 11 mind. 12 THE VIDEOGRAPHER: Going off the record. 13 The time is 2:43 p.m. 14 (Recess taken.) 15 THE VIDEOGRAPHER: Okay. We are back on the 16 record. The time is 3:00 p.m. 17 (Exhibit No. 83 was marked.) 18 BY MR. ANDERSON: 19 Q. Mr. Bolin, I have just handed you 20 Exhibit 83, which is marked and Bates labeled OCWD 21 MTBE-001-190415 through 190416. 22 Have you seen this document before? 23 A. I feel I must have, but it doesn't -- 24 I don't recall the content of the document. 25 Q. I think it's the first document</p>
<p style="text-align: right;">Page 1332</p> <p>1 need to start that modeling? 2 A. I'm not a modeler, so I can't really 3 say what information is going to be required. 4 I'm assuming most of the information will be 5 in our database, and when we select a modeler for 6 doing that, I suppose they will tell us what they 7 need. 8 Q. Do you have a timetable for when that 9 may happen? 10 A. I don't. 11 Q. Have you ever looked at the capture 12 zones for any of the nearby wells, production wells? 13 A. No. That involves mathematical 14 modeling, such as I was describing. 15 Q. Has OCWD done that? 16 A. No, not to my knowledge. Well, I 17 take that back. 18 There has been some rudimentary analysis for 19 capture zones, but it -- it's in regards to a program 20 called drinking -- let's see -- source water 21 assessment and protection. Drinking -- drinking 22 water assessment and protection, where there is a 23 simple formulas determined for evaluating the risk of 24 wells or vulnerability of wells to certain sources of 25 potential pollutants. Gas stations are on the list,</p>	<p style="text-align: right;">Page 1334</p> <p>1 behind Tab 8. 2 Did you rely on this document in reaching 3 your opinions regarding this site? 4 A. I don't remember to what degree I 5 referred to this document. My copy is highlighted 6 for leak discovery, leak reported, and leak began, 7 and I'm -- 8 MR. AXLINE: I'm going to object to that 9 question. Mr. Bolin is not offering an opinion with 10 respect to this site. He's appearing as the 11 District's 30(b)(6) witness with respect to this 12 site. 13 BY MR. ANDERSON: 14 Q. Did you rely on this document in 15 preparing for your testimony today as OCWD's 16 representative? 17 A. I think I referred to the leak 18 discovery and leak reported dates on this document. 19 Q. And for the record, this document is 20 from the State Water Resources Control Board, 21 correct? 22 A. Geotracker database, yes. 23 Q. And I don't see a date on this 24 document, but I note that in the middle it's -- at 25 least it's current as of March 21st, 2008 because it</p>

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<p style="text-align: right;">Page 1335</p> <p>1 references a March 21st, 2008 letter?</p> <p>2 A. Maybe I wasn't clear. I'm referring</p> <p>3 to that section under "regulatory activities."</p> <p>4 Q. I understand. I'm just trying to put</p> <p>5 a date on this --</p> <p>6 A. Oh, okay.</p> <p>7 Q. And I would say it was drafted</p> <p>8 sometime after March 21st, 2008 because it makes</p> <p>9 reference to another --</p> <p>10 A. I understand.</p> <p>11 Q. Yeah.</p> <p>12 On the right-hand column, near the top, it</p> <p>13 says, "Potential media affected." Do you see that?</p> <p>14 A. Yes.</p> <p>15 Q. What does it say underneath that?</p> <p>16 A. "Other groundwater. Uses other than</p> <p>17 drinking water."</p> <p>18 Q. So at least in this document, the</p> <p>19 State Water Resources Control Board is representing</p> <p>20 that groundwater, other than drinking water, would be</p> <p>21 affected by this release?</p> <p>22 A. That's a little -- that's confusing.</p> <p>23 To my knowledge, there isn't any water in the basin</p> <p>24 that isn't attached or associated with the drinking</p> <p>25 water, including water in the shallow-most horizon.</p>	<p style="text-align: right;">Page 1337</p> <p>1 But, in this case, in the proximity to this</p> <p>2 site, they are referring to water in the uppermost</p> <p>3 zone that is not a direct source of drinking water,</p> <p>4 but it replenishes drinking water.</p> <p>5 MR. ANDERSON: I'm going to object to</p> <p>6 everything after "yes" as nonresponsive.</p> <p>7 Q. Have you told the State Water</p> <p>8 Resources Control Board that you disagree with the</p> <p>9 representation in this document?</p> <p>10 A. I haven't talked to the State Water</p> <p>11 Resources Control Board.</p> <p>12 Q. So is that a "no"?</p> <p>13 A. That's a "no."</p> <p>14 Q. Thanks.</p> <p>15 Does OCWD think that the plume related to</p> <p>16 Chevron 9-5401 has commingled with plumes from any</p> <p>17 other stations?</p> <p>18 A. We don't know what degree the plumes</p> <p>19 might have commingled thus far. We know that there's</p> <p>20 been detections in drinking water wells. We know</p> <p>21 that there's been a release from the site. The</p> <p>22 contamination has migrated off site. This is a</p> <p>23 suspect source for the detections in those wells, so</p> <p>24 we don't know what degree commingling has occurred.</p> <p>25 Q. Has OCWD spent any money remediating</p>
<p style="text-align: right;">Page 1336</p> <p>1 That's where leaks first occur, is in the</p> <p>2 shallow-most horizon.</p> <p>3 Eventually, that water replenishes drinking</p> <p>4 water, and that's very true in the pressure zone</p> <p>5 where this site is located. The first releases are</p> <p>6 going to get into that shallow groundwater; the</p> <p>7 shallow groundwater will flow and eventually there is</p> <p>8 a downward gradient, and so it is drinking water.</p> <p>9 MR. ANDERSON: And I'm going to object to</p> <p>10 that as nonresponsive.</p> <p>11 Can you read my question back, please?</p> <p>12 (Record read as follows: QUESTION: So at</p> <p>13 least in this document, the State Water Resources</p> <p>14 Control Board is representing that groundwater, other</p> <p>15 than drinking water, would be affected by this</p> <p>16 release?)</p> <p>17 BY MR. ANDERSON:</p> <p>18 Q. Can you answer the question, please.</p> <p>19 A. Yes. They're distinguishing that</p> <p>20 there is groundwater in the basin that is not</p> <p>21 considered to be drinking water, but it -- it's</p> <p>22 all connected. This is my point.</p> <p>23 There isn't water in the basin that isn't</p> <p>24 drinking water, unless you're looking at seawater.</p> <p>25 Seawater would not be the drinking water.</p>	<p style="text-align: right;">Page 1338</p> <p>1 <u>MTBE contamination at this site to date?</u></p> <p>2 A. <u>No.</u></p> <p>3 Q. <u>Does OCWD plan to remediate any</u></p> <p>4 <u>contamination at this site?</u></p> <p>5 A. <u>Probably. But right now there are no</u></p> <p>6 <u>specific steps that have been identified to remediate</u></p> <p>7 <u>groundwater at this site.</u></p> <p>8 Q. <u>Has OCWD anticipated how much money</u></p> <p>9 <u>it plans to spend remediating contamination at this</u></p> <p>10 <u>site?</u></p> <p>11 A. <u>No.</u></p> <p>12 Q. <u>Is there a timetable for when it may</u></p> <p>13 <u>have an estimate for its potential remediation</u></p> <p>14 <u>expenditures?</u></p> <p>15 A. <u>No.</u></p> <p>16 Q. <u>Do you still have Exhibit 48, which</u></p> <p>17 <u>is the exhibit --</u></p> <p>18 A. <u>I do.</u></p> <p>19 Q. <u>-- Whitney was speaking with you</u></p> <p>20 <u>about?</u></p> <p>21 A. <u>Yes.</u></p> <p>22 Q. <u>What actions on Exhibit 48 has OCWD</u></p> <p>23 <u>taken at Chevron 9-5401 to date?</u></p> <p>24 A. <u>Well, we're in the process of</u></p> <p>25 <u>evaluating the site. This is, by the way, the same</u></p>

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<p style="text-align: right;">Page 1339</p> <p>1 question I have received on other sites. The answer 2 <u>is going to be substantially the same.</u> 3 <u>We are in the process of evaluating this</u> 4 <u>site, which is considered to be part of the</u> 5 <u>investigation phase and actually lends itself to a</u> 6 <u>remediation phase. Remediation always begins with an</u> 7 investigation. So there is some overlap between 8 remedial investigation and site investigation. 9 We've -- we retained an expert to help us 10 with the evaluation. They've completed -- well, 11 Komex didn't complete a site on this one, but we're 12 in the process of obtaining another consultant to 13 help us with evaluating this site. 14 Q. Is that it? 15 A. Yes. That's substantially the same 16 as the other sites. 17 Q. Which consultants is OCWD evaluating 18 to use for the process that you just described? 19 A. Well, I called the office after I -- 20 my earlier deposition this morning, and there is a 21 contract that has been accepted by Hargis & 22 Associates to provide threat assessment services to 23 Orange County Water District. It's not an executed 24 contract, but it is waiting for signatures at the 25 District.</p>	<p style="text-align: right;">Page 1341</p> <p>1 prepare a scope of work to begin our Phase II 2 investigation, which involves monitoring wells. 3 Q. When you said, "finish the 4 evaluations for the focus sites," is that referring 5 to stations in plaintiff's focus plumes or referring 6 to the Phase I 39 sites in Komex's initial 7 evaluation? 8 A. Well, they are going to look at some 9 of the work that Komex has already done in their 10 original list of sites, but the sites we're looking 11 at now, the present focus sites with these focus 12 plumes, there are some sites, including Chevron, this 13 Chevron site, that Komex had not reported on and 14 Hargis will be doing that. 15 Q. Is there a timetable for when this 16 work should be completed? 17 A. There was. It's changed dramatically 18 given our current circumstances. We were hoping to 19 have reports available to assist with depositions. 20 But that's changed. 21 Q. Is there a new timetable between the 22 parties? 23 A. No. We haven't -- we haven't gone 24 that far. 25 The scope of work was based on a different</p>
<p style="text-align: right;">Page 1340</p> <p>1 Q. And I'm an awful speller. Is it 2 H-A-R-G-I-S? 3 A. Yes, it is. 4 Q. Ah, well. 5 A. It's Hargis Plus. They don't use the 6 ampersand or "and." It's Hargis Plus Associates. 7 Q. Do you know if there was a dollar 8 amount of that contract? 9 A. Yes. 10 Q. What was that dollar amount? 11 A. I can't recall the exact dollar 12 amount. It's something in the neighborhood of 13 \$450,000. 14 Q. What exactly -- well, do you know 15 generally what the scope of work is that Hargis Plus 16 Associates is going to be performing for OCWD? 17 A. Yes. 18 Q. Will you describe that to me, please. 19 A. It's a continuation of some of what 20 Komex was doing where they left off. 21 They will review some of the Komex work. 22 They will complete site -- similar site evaluations 23 for sites, the focus sites we're looking at now for 24 which Komex had not been able to complete 25 evaluations. And it would be looking at helping us</p>	<p style="text-align: right;">Page 1342</p> <p>1 timetable. Now the scope is going to change a little 2 bit. We don't know to what degree. 3 Q. Is there a particular environmental 4 consultant who's heading up the project? 5 A. Point of contact is a good friend 6 whose name just escapes me. In San Diego. He's the 7 regional operations manager. 8 Q. Well, if you think about it later, 9 just let me know, or let Pete know. 10 A. That's embarrassing. 11 Q. How long have they been engaged and 12 working on this? Do you know? 13 A. Chris Ross. 14 Q. Chris Ross, okay. 15 A. Well, they haven't been. 16 Q. Right. So I understand that they are 17 still waiting to sign the contract, but have they 18 performed any work yet to date? 19 A. No. 20 Q. No. 21 Is OCWD paying the \$450,000 contract price 22 out of their own pocket? 23 A. Yes. 24 Q. All right. If I can transfer back to 25 Exhibit 48. I'd like -- will you tell me what future</p>

50 (Pages 1339 to 1342)